

**Materials/Methods:** The training curriculum for radiation oncologists (ROs), therapists (RTTs) and medical physicists (MPs) consisted of: Week 1 (Days 1-5): 1) assessment of workflow and scheduling of the course; 2) lecture on differences between 2-D and 3-DCRT and 3-DCRT benefits; 3) lecture on prone positioning; 4) review of the RTOG Breast Cancer Atlas and ESTRO Guidelines; 5) 15 questions test pre and post training; and 6) practical training in supine and prone CT simulation. Week 2: 1) guided contouring of tumor and normal organs using Educase modules provided through the Contouring Ambassador program of ASTRO's International Education Subcommittee; 2) practice in designing beam shapes and angles through a dosimetry workshop; 3) simulate, plan and treat first patient; and 4) feedback from the participants using focus groups and questionnaires.

**Results:** Ten RT professionals participated in the pilot curriculum (6 ROs, 2 MPs, and 2 RTTs). Eight RT professionals attended the lectures. Three ROs, 2 MPs, and 2 RTTs participated in the CT simulation. Contouring sessions were held with two ROs at a time during clinic breaks as available. Assessment demonstrated that contouring was widely considered the most useful aspect of the curriculum. Participants expressed their intent to also use the Educase modules independently after the curriculum. Key challenges included: achieving individual participation in all aspects of the curriculum in a high-volume department (~100 patients/day, 3 machines) and limited use of the CT simulator, and hence, CT simulation practice due to the cost associated with its use.

**Conclusion:** A pilot curriculum to guide 3-DCRT transition is feasible. It requires availability of a team of RT professionals from both collaborating institutions and sufficient flexibility from all parties. It presents a unique opportunity for exchange of expertise. Based on this initial success, the next phase is approved for a month-long project to guide Armenia's RT professionals in 3-D techniques for head and neck, prostate and lung cancers. Parallel efforts in refining the curriculum are ongoing for testing the intervention in the next collaborating country.

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## 2899

### Oncology Physician Attitudes Toward Patient and Family Centered Care

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**Purpose/Objective(s):** Patient and family-centered care (PFCC) represents an evolution from traditional models of provider-focused and patient-focused care that places a strong emphasis on optimal patient communication, patient autonomy, and shared decision-making within care teams. A shift towards PFCC requires participation across all provider groups. Despite the importance of physician buy-in, research examining physicians' perspectives on PFCC is lacking. We sought to explore oncologists' familiarity with the principles of PFCC, perceived barriers to implementing principles of PFCC, and examples of physician behaviors consistent with PFCC.

**Materials/Methods:** In this qualitative exploratory study, we conducted semi-structured interviews with 18 oncologists (8 radiation, 4 medical, 4 surgical, 2 hematologist-oncologists) at a single Canadian academic cancer institution. Interview data were analyzed using coding principles drawn from grounded theory. Constant comparisons were used to identify recurring themes.

**Results:** We identified 3 dominant themes related to physicians' interpretations of PFCC: 1) physicians expressed a limited understanding of the formal principles of PFCC; 2) physicians identified patient autonomy as essential to PFCC; and 3) disparities between patient and physician objectives exist and result in compromises that may affect the quality of PFCC delivered. Time was both a facilitator and a barrier. While oncologists perceived that spending more time with patients improved PFCC, they also recognized that time was limited: spending more time engaging in PFCC would leave less time to devote to other necessary activities.

Participants also identified a number of 'system' barriers to PFCC, including limited staff and clinical space, excessive case load, a lack of physician support and input into operational decisions, and funding constraints. Many felt that PFCC was challenged by inefficiencies in the system of care delivery, and that progress might lie in reorganization that more clearly matched health care staff's roles and responsibilities to their credentials and skills. Self-identified behaviors enabling PFCC generally involved strategies to ensure patient needs were met despite time constraints and remaining attentive to the clinical environment in order to provide care appropriate to individual patient experiences.

**Conclusion:** Based on our interviews, advancing PFCC in our institution will require continued education of physicians regarding the principles of PFCC, acknowledgement and preservation of the PFCC behaviors already in practice and creative solutions to address the system issues that may hamper their abilities to enact PFCC.

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## 2900

### Cost-Effectiveness of Gemcitabine Plus Cisplatin and Intensity Modulated Radiation Therapy for Patients With Locally Advanced Cervical Cancer

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**Purpose/Objective(s):** Previous studies have found neither gemcitabine/cisplatin (G/C) nor intensity modulated radiation therapy (IMRT) is cost-effective for locally advanced cervical cancer, but this conclusion depends on the estimated costs of therapy and associated toxicities. The purpose of this study was to reexamine whether G/C and IMRT are cost-effective, given decreased therapy costs and updated estimates of the effects of IMRT.

**Materials/Methods:** We conducted a cost-effectiveness analysis comparing four arms: conventional RT plus concurrent and adjuvant G/C versus conventional RT plus concurrent cisplatin versus IMRT plus concurrent and adjuvant G/C versus IMRT plus concurrent cisplatin. We incorporated adverse events (AEs) and progression-free (PF) survival rates into each arm based on results from a published phase 3 trial of G/C (PMID: 21444871). We defined acute AEs as any hospitalization, grade 4 hematologic toxicity, or death and late AEs as grade 4 gastrointestinal and genitourinary toxicity. A 40-50% reduction in toxicity was hypothesized with IMRT, based on published normal tissue complication models and clinical series (PMID: 16757127, 20400238, 17394944, 20708346, and 22516388). We used current Medicare data to estimate costs of AEs and treatments. We calculated incremental cost-effectiveness ratios (ICERs) and performed sensitivity analyses. A willingness-to-pay threshold of \$50,000 was used to define cost-effectiveness.

**Results:** The cost of therapy and AEs for a hypothesized cohort of 10 000 women with stage IIB-IVA cervical cancer was \$196.1 million (M) for conventional RT + G/C versus \$173.1M for conventional RT + cisplatin versus \$257.9M for IMRT + G/C versus \$238.5M for IMRT + cisplatin. The estimated ICER for conventional RT+G/C versus conventional RT + cisplatin was \$26,227 per progression-free life-year saved. Intensity modulated radiation therapy was not cost-effective at the \$50,000 willingness-to-pay threshold; however, when the cost of IMRT was reduced by 24%, IMRT + G/C became cost-effective with an ICER of \$49,149. When the cost of IMRT was reduced by 35.6%, IMRT + G/C became the dominant treatment, with an ICER of \$26,225.

**Conclusion:** Conventional RT plus G/C is cost-effective for stage IIB-IVA cervical cancer; IMRT is not cost-effective at the standard threshold, unless its costs decrease by at least 24%.

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